

Exploring Motion

1-5 The student will demonstrate an understanding of the positions and motions of objects. (Physical Science)

1-5.2 Explain the importance of pushing and pulling to the motion of an object.

Taxonomy level: 2.7-B Understand Conceptual Knowledge

Previous/Future knowledge: This is a foundational concept that students will develop further in future grades. In 3rd grade (3-5.3), students will explain how the motion of an object is affected by the strength of a push or a pull and will begin to investigate the effect of gravity on the motion of an object.

It is essential for a student to know an object that is not moving will only move if it is pushed or pulled.

A push or a pull can affect the motion of an object in three ways: –

- It can make it go faster.
- It can make it slow down.
- It can change the direction of the motion.

It is not essential for students to determine how fast an object is traveling.

Assessment Guidelines:

The objective of this indicator is to *explain* the importance of pushing and pulling on an object's motion; therefore; the primary focus of assessment should be to construct a cause-and-effect model of the various ways that an object's motion is affected by pushing and pulling. However, appropriate assessments should also require students to *recall* that the motion of an object is changed if it is pushed or pulled; or *infer* what would happen if a certain object was pushed or pulled.